

**REMARKS/ARGUMENTS**

In the Office Action mailed September 30, 2009, claims 1-4 and 6-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mogenson, U.S. Patent App. Pub. No. 2004/0105460 ("Mogenson") in view of Larsson et al., U.S. Patent No. 5,241,690 ("Larson"), and further in view of Haartsen, U.S. Patent App. Pub. No. 2002/0187799 ("Haartsen"), and further in view of Ahmed, U.S. Patent No. 5,946,346 ("Ahmed").

Claims 1-3, 6-23, and 24-29 are now pending in this application. In Applicants previous Response, the independent claims were amended to include the subject matter previously recited by claim 5. This amendment was for the purposes of facilitating allowance. However, the Examiner appears to have reconsidered the allowability of the subject matter previously recited by claim 5, and has rejected the entirety of the independent claims. In light of the reconsideration, Applicants have amended each of the independent claims to remove the subject matter previously recited by claim 5. New dependent claims 24-29 have been added to recite the subject matter removed from the independent claims (and previously indicated as allowable). No new matter has been added.

As a threshold matter, Applicants note that the Examiner has failed to address the entirety of the features recited by the independent claims. As such, the Examiner has failed to satisfy a *prima facie* case of obviousness. In particular, the independent claims recite "adjusting the threshold value when the signal transmission quality is within a predetermined range of the threshold value, and maintaining the threshold value unchanged when the signal transmission quality is outside that range." *See, e.g.*, Claim 1.

The Office Action does not address this feature, and thus Applicants assume that this subject matter is allowable. Mogenson, Larsson, Haarsten, and Ahmed fail to disclose this feature of the present invention. As a preemptive strike against the Examiner citing Ahmed to reject this feature, Applicants note that Ahmed discloses increasing or decreasing a threshold under different circumstances, but never disclose that a threshold value is unchanged under the circumstances recited by the independent claims.

Proceeding to the substantive rejections that are set out in the Office Action, for the sake of brevity, the discussion of Mogenson and Larsson included in Applicants Response filed November 25, 2008 is incorporated herein, and is not repeated. As the rejection based on Haartsen has not been addressed previously, Applicants begin with a discussion of Haartsen.

Haartsen discloses a system and method for link adaptation in a communication system. Specifically, the system allocates resources to a communication channel between a transmitter and receiver. *See* Abstract. The receiver implements a procedure that instructs the transmitter to utilize the maximum available bandwidth, consistent with maintaining satisfactory communication channel performance. *Id.* When the performance of the communication channel degrades, the receiver measures the strength of a communication signal received from the transmitter. *Id.* If the communication signal strength satisfies a threshold, then the bandwidth dedicated to the communication channel may be decreased, and the number of bits per symbol and coding rate may be increased. *Id.* If the communication strength fails to satisfy a threshold, then the transmitter may increase the transmission power and/or reduce the user rate of the communication link. *Id.*

Indeed, the specific portions of Haartsen cited by the Examiner discuss this very principle in more detail. *See* Office Action at Page 4. Specifically, paragraph 0041 of Haartsen, cited by the Examiner, states that a communication unit attempts “to determine whether degradation in the performance of a communication channel is attributable to noise or interference before applying a link adaptation scheme.” Haartsen at Para. 0041 (emphasis added). In other words, Haartsen applies a link adaptation scheme, but performs a series of steps before doing so.

In contrast, one aspect of the present invention leaves a selected modulation and coding level unchanged even though the comparison between a signal transmission quality and the threshold value indicates that the modulation and coding level should be increased, when the transmitted signal is not successfully received at the receiver. *See, e.g.*, Claim 1. Haartsen does not disclose, alone or in combination with Mogenson, Larsson, and Ahmed, leaving a modulation and coding level unchanged. Indeed, Haartsen explicitly states that the modulation and coding levels are, in fact, changed. *Id.* at Para. 0041 and 0045. For instance, Haartsen states that “to improve the performance of a noise limited channel, additional coding or a more robust modulation scheme may be applied.” *Id.* at Para. 0041. Similarly, Haartsen responds to an interference-limited environment by dividing the allocated radio spectrum into more carriers supporting narrower channels. *Id.* at Para. 0045.

In light of the failure to satisfy a *prima facie* case of obviousness, and the multiple deficiencies of the cited references for the reasons set forth above, Applicants submit that the Examiner’s § 103 rejections have been overcome. As such, reconsideration and allowance of the pending claims is respectfully requested.

Each of the claims now pending in this application is believed to be in condition for allowance. Accordingly, favorable reconsideration of this case and early issuance of the Notice of Allowance are respectfully requested.

**Additional Fees:**

A Petition for Extension of Time is submitted herewith extending the time for response three months to and including March 30, 2010. The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with this application to Deposit Account No. 50-4545 (5243-042-US01).

**Conclusion**

In view of the foregoing, all of the Examiner's rejections to the claims are believed to be overcome. The Applicants respectfully request reconsideration and issuance of a Notice of Allowance for all the claims remaining in the application. Should the Examiner feel further communication would facilitate prosecution, he is urged to call the undersigned at the phone number provided below.

Respectfully Submitted,



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